arising from the application of the Hofmann reaction to apoharmine.—H. Jacob **de Cordemoy**: The structure of two Melastomaceæ with tuberised roots from the east of Madagascar.—Maurice **Mangin**: Contribution to the study of the disease of the pine supposed to have been caused by *Rhizina inflata*.—M. **Lecercle**: Heat of the gases of respiration.—J. E. **Abelous** and E. **Bardier**: The mechanism of anaphylaxy. The immediate production of the anaphylactic shock without preliminary injection of antigen.—Raoul **Bayeux**: The anoxhemia of high altitudes and its treatment by hypodermic oxygenation. — N. A. **Barbieri**: Anatomical study on the aretinian of the optic nerve in vertebrates.—A. **Magnan**: The growth of ducks submitted to four different methods of feeding.—E. **Vasticar**: The structure of Deiters's cell.—G. **Rebière**: The properties and chemical composition of electrical colloidal silver precipitated from its solutions by electrolytes. Colloidal silver prepared electrically in pure water and precipitated by electrolytes is a mixture of silver and silver oxide in variable proportions.—C. **Gerber**: The hydrolysis of starch paste by hydrogen peroxide alone or in presence of the plant or animal amylases.—J. **Giraud**: The geology of the south of Madagascar.—A. **Delage**: The traces of the great quadrupeds in the lower Permian of Hérault.—J. **Deprat**: Two new genera of Fusulinidæ of eastern Asia, interesting from the phylogenic point of view.—Ph. **Glangeaud**: Hydrographic changes produced by the volcanoes of the Puys chain.

NEW SOUTH WALES.

Linnean Society, March 27.—Mr. W. W. Froggatt, president, in the chair.—The President delivered the annual address, which was devoted largely to a consideration of the advances made in the study of insect-life from an economic point of view, including a summary of what the various nations are attempting to do in the way of protecting man and his belongings from the drawbacks resulting from the wholesale disturbance of the conditions under which insect-faunas formerly locally attained something like equilibrium for each country, and what national efforts have now become necessary in order to cope with the depredations of insects which have been unintentionally introduced, and flourish amazingly under new conditions, or of indigenous insects which assert themselves in a menacing manner under modified natural conditions.—Dr. H. L. **Kesteven**: The constitution of the gastropod protoconch: its value as a taxonomic feature, and the significance of some of its forms.—E. W. **Ferguson**: Revision of the amycterides. Part ii., Talaurinus.

April 24.—Mr. W. W. Froggatt, president, in the chair.—J. M. **Petrie**: The chemistry of *Doryphora sassafras*, Endl. The *D. sassafras* tree is endemic to East Australia. Its bark contains 1·35 per cent. of an essential oil, besides fixed oils, aromatic resins, tannin (1·38 per cent.), sugars, calcium oxalate, and 0·63 per cent. of an alkaloid. The essential oil is also found in the leaves (4·3 per cent.) and fruit (4 per cent.). The alkaloid is an amorphous, grey powder, darkening when exposed to light and air. It is highly electric, and possesses a bitter taste, and alkaline reaction. It is concluded that the alkaloid is a new one, and the name "doryphorine" is proposed for it.—A. H. S. **Lucas**: Supplementary list of the marine algæ of Australia. By an oversight, the red algæ of the subfamily Dasyeæ were omitted from the list of Australian Florideæ published in the Proceedings for 1909 (p. 9). This omission has been rectified, and the list amplified.—P. **Cameron**: A collection of parasitic Hymenoptera (chiefly bred) from New South Wales, collected by Mr. W. W. Froggatt, with descriptions of new genera and species. Part iii. Four genera and thirty-seven species, referable to six families, are described as new.—P. **Cameron**: Description of two new species of Ichneumonidæ from the island of Ard. A species of Suvalta and one of Erythromorpha are described as new.—Dr. J. M. **Petrie**: Hydrocyanic acid in plants. Part i. Its distribution in the Australian flora. The paper consists of a list of about 300 native plants, representing sixty-five natural orders. These plants were tested for the presence of cyanogenetic glucosides and of emulsin-like ferments. The table shows thirty-six plants giving positive results, in which hydrocyanic acid is liberated by a natural ferment in the plant. It includes also seven exotic plants, in which the presence of hydrocyanic acid is recorded for the first time. Hydrocyanic acid is now held to play an important part in the metabolism of those plants in which its compounds occur.

BOOKS RECEIVED.

Smithsonian Institution. Bureau of American Ethnology. Bulletin 47:—A Dictionary of the Biloxi and Ofo Languages. By J. O. Dorsey and J. R. Swanton. Pp. v+340. (Washington: Government Printing Office.)

Oscillations et Vibrations. Étude générale des mouvements vibratoires. By A. Boutaric. Pp. 403. (Paris: O. Doin & Fils.) 5 francs.

Handwörterbuch der Naturwissenschaften. Edited by E. Korschelt and others. Zehnte und elfte Lief. (Jena: G. Fischer.) 2.50 marks each.

Das Buch der Natur. By Dr. F. Schoedler. Dreiundzwanzigste Auflage. Dritter Teil. Astronomie und Physik. Zweite Abteilung. Physik. By Prof. H. Böttger. Erster Band. Mechanik, Wärmelehre, Akustik. Pp. xiii+983. (Braunschweig: F. Vieweg & Sohn.) 15 marks.

Man in the Old Stone Age. By Rev. G. W. Bancks. Pp. 26. (London: Unwin Bros., Ltd.) 1*s.*

A Hand-list of British Birds. With an Account of the Distribution of each Species in the British Isles and Abroad. By E. Hartert and others. Pp. xii+237. (London: Witherby and Co.) 7*s.* 6*d.* net.

Ordnance Survey. Professional Papers—New Series, No. 1. An Account of the Measurement of a Geodetic Base Line at Lossiemouth, in 1909, together with a Discussion on the Theory of Measurement by Metal Tapes and Wires in Catenary. Pp. 39. (London: H.M.S.O.; Wyman and Sons, Ltd.) 2*s.*

Fancy Mice. Their Varieties and Management as Pets or for Show. By C. J. Davies. Pp. iv+84. (London: L. Upcott Gill.) 1*s.* net.

The Story of "Eight Deer" in Codex Colombino. By J. C. Clark. Pp. 33+10 coloured plates in text. (London: Taylor and Francis.) 21*s.* net.

Oil-finding: an Introduction to the Geological Study of Petroleum. By E. H. C. Craig. Pp. x+195. (London: E. Arnold.) 8*s.* 6*d.* net.

Exercises in Chemical Calculation. By Dr. H. F. Coward and W. H. Perkins. Pp. v+152. (London: E. Arnold.) 2*s.* 6*d.* net.

A History of British Mammals. By G. E. H. Barrett-Hamilton. Part xi. (London: Gurney and Jackson.) 2*s.* 6*d.* net.

The House-fly—Disease Carrier. By Dr. L. O. Howard. Pp. xix+312. (London: J. Murray.) 6*s.* net.

Further Researches into Induced Cell-reproduction and Cancer. By H. C. Ross, J. W. Cropper, and E. H. Ross. Vol. ii. Pp. 125. (London: J. Murray.) 3*s.* 6*d.* net.

© 1912 Nature Publishing Group

The Oxford Country. Its Attractions and Associations described by Several Authors. Collected and arranged by R. T. Günther. Pp. xvi+319. (London: J. Murray.) 7*s.* 6*d.* net.

Science of the sea. An Elementary Handbook of Practical Oceanography for Travellers, Sailors, and Yachtsmen. Edited by Dr. G. H. Fowler. Pp. xviii+452. (London: J. Murray.) 6*s.* net.

Department of Applied Statistics, University College, University of London. Drapers' Company Research Memoirs. Biometric Series VIII.—Mathematical Contributions to the Theory of Evolution, XVIII. On a Novel Method of Regarding the Association of Two Variates classed solely in Alternate Categories. By K. Pearson. Pp. 29+2 plates. (London: Dulau and Co., Ltd.) 4*s.* net.

Problems in Physical Chemistry, with Practical Applications. By Dr. E. B. R. Prideaux. Pp. ix+311. (London: Constable and Co., Ltd.) 7*s.* 6*d.* net.

Laboratory Test Cards. By J. Don and H. Jamieson. First Year—Measurement and Matter; Second Year—Heat; Third Year—Chemistry. Eighteen Cards and two sets of Answers to each year. (London: W. B. Clive.) 1*s.* net each.

Allgemeine Biologie. By Prof. O. Hertwig. Vierte Auflage. Pp. xviii+787. (Jena: G. Fischer.) 19.50 marks.

North Sea Fisheries Investigation Committee. Fourth Report (Southern Area) on Fishery and Hydrographical Investigations in the North Sea and Adjacent Waters, 1909. Pp. ix+497+8 charts. (London: H.M.S.O.; Wyman and Sons, Ltd.; and others.) 13*s.*

DIARY OF SOCIETIES.

THURSDAY, June 13.

Royal Society, at 4.30.—An Expansion Apparatus for making Visible the Tracks of Ionizing Particles in Gases, and some Results obtained by its Use: C. T. R. Wilson.—A Chemically Active Modification of Nitrogen, produced by the Electric Discharge, IV.: Hon. R. J. Strutt.—(1) On the Series Lines in the Arc Spectrum of Mercury. (2) On the Constitution of the Mercury Green Line $\lambda=5461$ AU and on the Magnetic Resolution of its Satellites by an Echelon Grating: Prof. J. C. McLennan.—(1) On the Convergence of certain Series involving the Fourier Constants of a Function. (2) On Classes of Summable Functions and their Fourier Series: Prof. W. H. Young.—The Number of β Particles emitted in the Transformation of Radium: H. G. Y. Moseley.—Portland Experiments on the Flow of Oil in Pipes: S. D. Carothers.—On a Form of the Solution of Laplace's Equation suitable for Problems relating to two Spheres: G. B. Jeffery.—On the Emission Velocities of Photo-Electrons: A. Ll. Hughes.

FRIDAY, June 14.

Royal Institution, at 9.—Unknown Parts of South America: A. H Savage Landor.

Geologists' Association, at 8.—The Geology of West Mayo and Sligo, with special reference to the August Long Excursion: Prof. G. A. J. Cole.

Royal Astronomical Society, at 5.—On Librating Planets, and on a New Family of Periodic Orbits: Sir G. H. Darwin.—The Sidereal System, revised in 1912: Maxwell Hall.—Observation of the Spectrum of Nova Geminorum: L. Becker.—Micrometrical Measures of Double Stars: Rev. T. E. R. Phillips.—*Probable Papers:* Note on the Spectrum of Nova Geminorum, April 24, 1912: Rev. A. L. Cortie.—Further Observations of the New Star in Gemini: A. A. Rambaut.—Occultation Results, January-April, 1912: M. E. J. Gheury.

Physical Society, at 8.—Demonstration of a Method of Determining very small Differences of Density: T. H. Blakesley.—The Maximum Sensibility of a Duddell Vibration Galvanometer: Dr. F. H. Haworth.—An Accurate Examination of the Steinmetz Index for Transformer Iron, Stalloy and Cast Iron: F. Stroude.

Malacological Society, at 8.—On a collection of Molluscs collected by Mr. E. Jacobson in Java: M. M. Schepman.—Description of Thirty-three New Species of Gastropoda from the Persian Gulf, Gulf of Oman, and Arabian Sea: J. Cosmo Melvill.—Note on the Generic Name Pectunculus: Wm. H. Dall.—Note on Ianthina species: Tom Iredale.—Egyptian Non-marine Molluscs: Maxwell Smith.

MONDAY, June 17.

Victoria Institute, at 4.30.—Annual Address: Sir Andrew Wingate, K.C.I.E.

Society of Chemical Industry, at 8.—The Production and Polymerisation of Isoprene and its Homologues: W. H. Perkin.—A Hand Photometer: W. J. Dibdin.—The Oxidation of the Drying Oils: J. Newton Friend and W. J. Davison.

TUESDAY, June 18.

Royal Statistical Society, at 5.—The Measurement of Employment—an Experiment: A. L. Bowley.

Mineralogical Society, at 5.30.—The Isomorphism of the Acid Tartrates and Tartar-emetics of Potassium, Rubidium and Cæsium: T. V. Barker.—On Topaz and Beryl from the Granite of Lundy Island: W. F. P. McLintock and T. C. F. Hall.—On the Rathite Group: R. H. Solly. On the Minerals of the Nakhla Meteorite: Dr. G. T. Prior.—Note on the Occurrence of Cassiterite and Strüverite in Perak: J. B. Scrivenor.

WEDNESDAY, June 19.

Geological Society, at 8.—The Discovery of a Fossil-bearing Horizon in the Permian Rocks of Hamstead Quarries, near Birmingham: W. H. Hardaker.—On the Geology and Palæontology of the Warwickshire Coalfield: R. D. Vernon.

Royal Meteorological Society, at 4.30.—The Adoption of a Climatological Day: Walter W. Bryant.—A Three-year Period in Rainfall: Arthur Pearse Jenkin.

Royal Microscopical Society, at 8.—Notes on Pollen: The Rt. Hon. Lord Avebury.—Demonstrations of a method of obtaining Frozen Sections after Embedding in Gelatin: Dr. J. F. Gaskell.—On some New Astrorhizidæ and their Structure: Heron-Allen and A. Earland.

THURSDAY, June 20.

Royal Society, at 4.30.—*Probable Papers:* An Investigation into the Life-history of *Cladothrix dichotoma* (Cohn): Dr. D. Ellis.—The Relation of Secretory and Capillary Pressure. I. The Salivary Secretion: Leonard Hill and M. Flack.—The Origin and Destiny of Cholesterol in the Animal Organism. Part IX. On the Cholesterol Content of the Tissues other than Liver of Rabbits under Various Diets and during Inanition: G. W. Ellis and J. A. Gardner.—A Note on the Protozoa from Sick Soils, with some Account of the Life-cycle of a Flagellate Monad: C. H. Martin.—Further Observations on the Variability of Streptococci in Relation to Certain Fermentation Tests, together with some considerations bearing upon its possible meaning: E. W. A. Walker.—The Chemical Action on Glucose of a Variety of *B. coli communis* (Escherich) obtained by cultivation in presence of a Chloroacetate (Preliminary notice): A. Harden and W. J. Penfold.—The Action of Enzymes on Hexosephosphate: V. J. Harding.—The Oxydases of *Cytisus Adami*: Prof. F. W. Keeble and Dr. E. F. Armstrong.

CONTENTS.

PAGE
Scientific Worthies. XXXVIII.—Dr. Alfred Russel Wallace, D.C.L., O.M., F.R.S. (*With Portrait.*) By **Prof. Henry Fairfield Osborn** . . . 367
Problems of Modern Plant Physiology. By **J. B. F.** 371
Protozoology. By **E. A. M.** 372
Modern Explosives. By **J. S. S. B.** 372
Progress of Science 373
Our Bookshelf 374
Letters to the Editor:—
The Distastefulness of *Danaida* (*Anosia*) *plexippus*.—**Prof. Edward B. Poulton, F.R.S.** 375
The Weather of 1911 and the Ultra-violet Radiations of the Sun.—**Dr. Carl Ramsauer** 376
Alleged Ultra-violet Rays from Filament Lamps.—**A. P. Trotter** 377
Earthquake of May 23.—**F. Edward Norris** . . . 377
Solar Halos and Mock Suns. By **E. G.** 377
Canadian Mineral Resources. By **J. W. G.** 378
Prof. Eduard Strasburger. By **J. B. F.** 379
Notes 380
Our Astronomical Column:—
Nova Geminorum No. 2 384
The Minor Planet 1911 MT 384
The Spectrum of P Cygni 384
Secondary Oscillations in Radial-velocity Curves . . 385
Congress of Universities of the Empire 385
The National Physical Laboratory. By **Prof. C. H. Lees, F.R.S.** 386
The Etiology of Kala-azar. By **Captain W. S. Patton** 386
University and Educational Intelligence 388
Societies and Academies 390
Books Received 391
Diary of Societies 392

© 1912 Nature Publishing Group